

NovaPro UHD Jr

All-in-One Controller

V1.1.2



Specification

Change History

Version	Release Date	Description
V1.1.2	2020-04-09	Added the descriptions for the HDCP version and deinterlacing signal support of the input connectors.
V1.1.1	2019-10-30	Increased the version number only.
V1.1.0	2019-10-09	<p>New features:</p> <ul style="list-style-type: none"> • Added the third layer (PIP2). • Added the description for optical fiber port and Ethernet port statuses displayed on home screen. • Added the description for 3D function. <p>Changes:</p> <p>HDMI supported HDCP 2.2.</p> <p>Deletes:</p> <p>Deleted the descriptions for Transition Effect and Effect Duration in Display Control.</p>
V1.0.1	2019-07-10	Added the description of HDMI LOOP supporting only 1 level of device cascading.
V1.0.0	2019-06-06	First release

Overview

The NovaPro UHD Jr is NovaStar's new all-in-one controller that features excellent video processing capabilities, sending card functions and LED screen configurations. The NovaPro UHD Jr provides a variety of video input connectors, supporting full HD 4K×2K@60Hz image processing and sending capabilities. Additionally, the NovaPro UHD Jr supports 8K×1K@60Hz ultra-high resolution settings.

With the help of smart control software V-Can from Novastar, the NovaPro UHD Jr can enable richer image mosaic effects and faster and easier operations.

The NovaPro UHD Jr can send the processed video to the LED screen via Neutrik Ethernet ports and optical fiber ports. Thanks to its powerful video processing capabilities and sending functions, the NovaPro UHD Jr is well suited for stage control systems, conference sites, activities, exhibition sites and other high-end rental applications as well as fine-pitch LED displays.

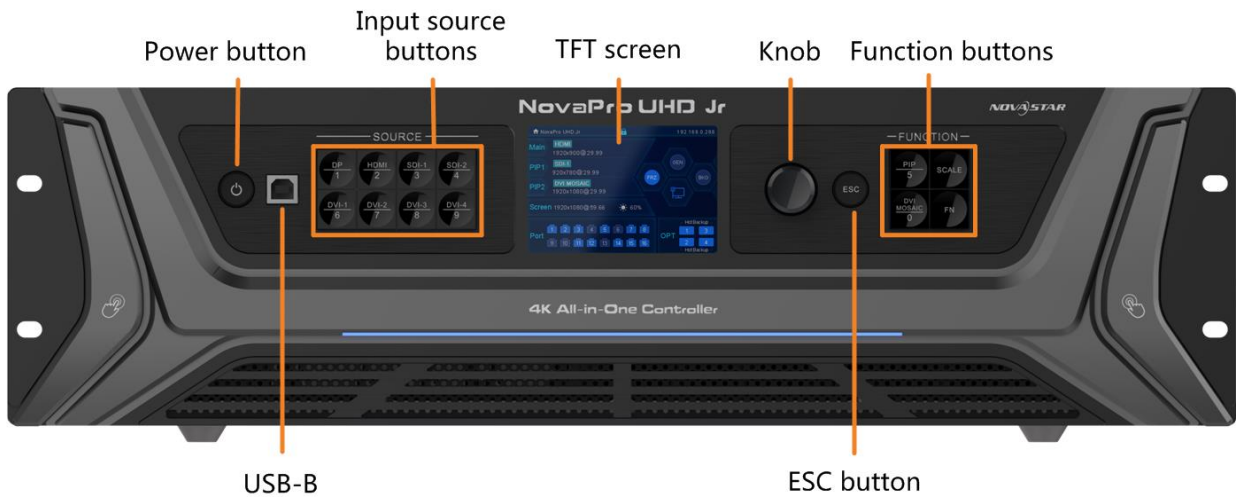
Features

- A variety of inputs and outputs
Provides 1 × DP 1.2, 4 × DVI, 1 × HDMI 2.0 with loop output and 2 × 12G-SDI with loop output.
- More output connectors, larger loading capacity
Provides 16 × Neutrik Ethernet output and 4 × optical fiber output, with loading capacity up to 10,400,000 pixels.
The maximum width is 16K and maximum height is 8K.
- 3D mode
Turning on 3D mode will halve the device output capacity.
- 3 layers
Supports one main layer and two PIPs, with layer priority adjustable.
- DVI mosaic
An input source can be made up of at most 4 DVI input sources.
- HDR output
Greatly enhances display image quality, providing more clear and vivid image.
- Decimal frame rates
The supported frame rates are 23.98, 29.97 and 59.94.
- Low-latency output

- Realize 2 frame delay from sending card to receiving card when the device is used together with NovaStar Armor series receiving cards (A8/A8s/A9s/A10s Plus).
- Customized BKG settings
 - Supports pure color and image BKGs.
 - Personalized image scaling
 - Supports 3 kinds of image scaling modes: full screen, pixel to pixel, custom.
 - Capture function
 - Captures input source image which can be used as a BKG image.
- Image mosaic
 - Up to 4 NovaPro UHD Jr units can be connected to load a super-large screen when used with the video distributor.
- V-Can (smart control software from NovaStar) supported
- 10 presets
 - At most 10 user presets can be created and saved as templates which can be used directly and conveniently.
- EDID management supported
 - Supports custom EDID and standard EDID.

Appearance

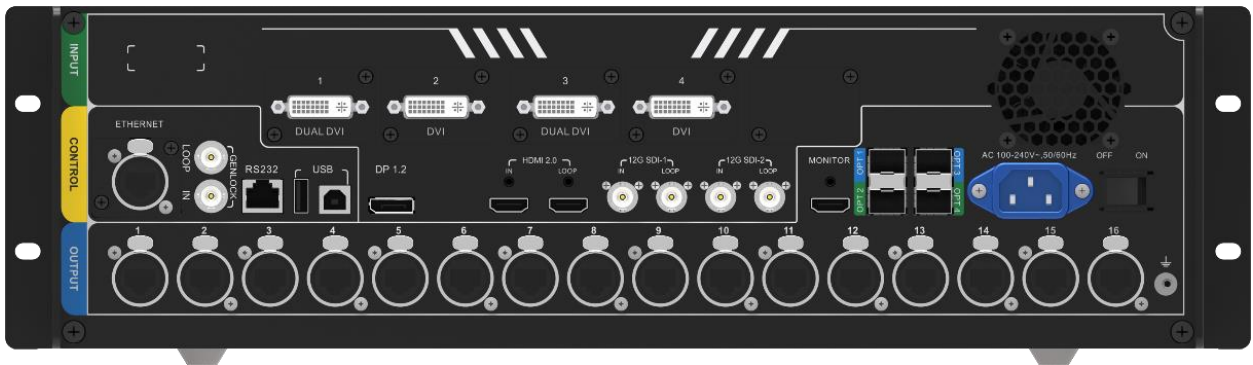
Front Panel



Button	Description
Power button	<ul style="list-style-type: none"> ● Power on: Press the button to power on the device. ● Power off: Hold down the button to pop up a dialog box, then rotate the knob to select Yes and press the knob to power off the device.
USB-B	For PC connection for debugging.
Input source buttons	<ul style="list-style-type: none"> ● Input source switching buttons. Press the button to switch the input source for the main layer. ● Button indicators are used to indicate the working status of the input source signal. <ul style="list-style-type: none"> – White, always on: Input source is not used, and no input signal is accessed. – Blue, fast flashing: Input source is used, but no input signal is accessed. – Blue, slow flashing: Input source is not used, but input signal is accessed. – Blue, always on: Input source is used, and input signal is accessed.
TFT screen	Display the current device status and settings menu.
Knob	<ul style="list-style-type: none"> ● On the home screen, press the knob to enter the operation menu screen. ● On the operation menu screen, rotate the knob to select a menu item, and press the knob to confirm the selection or enter the submenu. ● When a menu item with parameters is selected, you can rotate the knob to adjust

	the parameters. Please note that after adjustment, you need to press the knob again to confirm the adjustment.
ESC button	Press the button to exit the current menu or cancel the operation.
Function buttons	<ul style="list-style-type: none"> • PIP: Enter the layer settings screen. • SCALE: Enable/Disable the scaling function of bottom layer. • DVI MOSAIC: Switch to DVI mosaic input source. Press it to switch the input source of main layer. • FN: This is a custom function button. The function can be customized to Synchronization, Preset Settings, Freeze, Black Out, Quick Configuration, Test Pattern, Image Quality and Main Layer. It is Synchronization by default.

Rear Panel

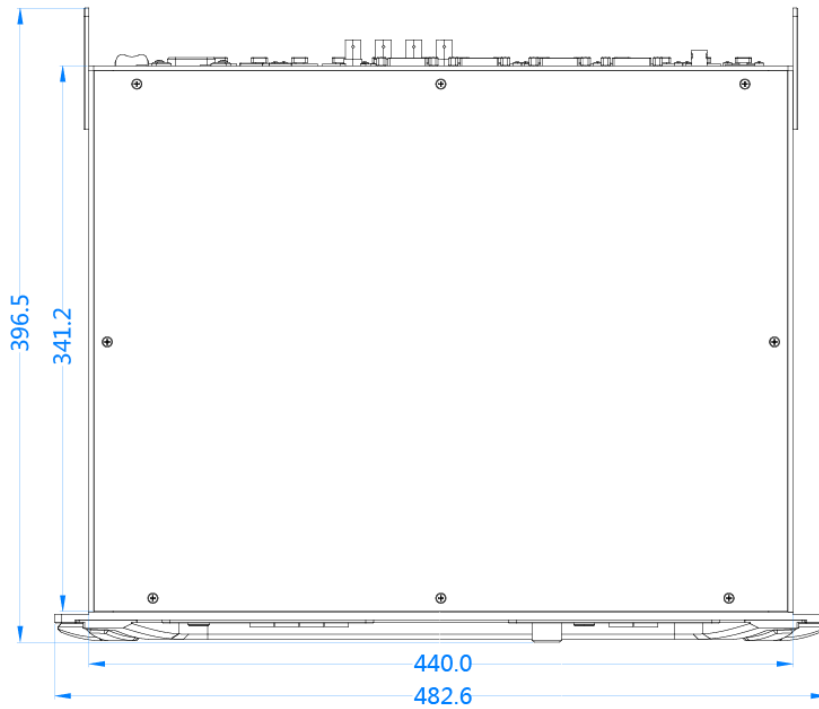
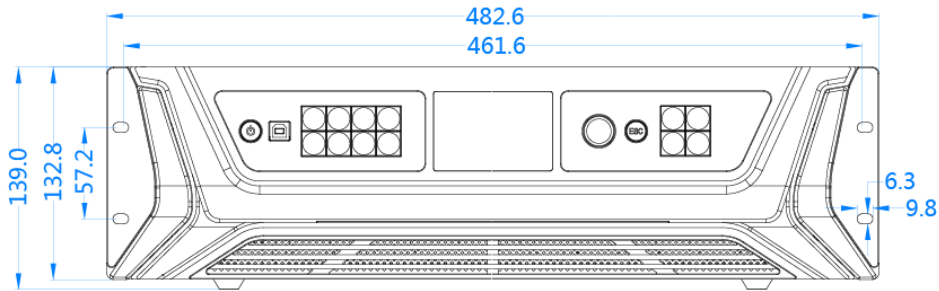


Input		
Connector	Quantity	Description
DVI	4	<ul style="list-style-type: none"> • Four DVIs are all single-link DVI connectors by default. <ul style="list-style-type: none"> – 4 × DVI inputs. – Each DVI: Input resolution up to 1920×1200@60Hz, downward compatible. – 4 DVI input sources constitute 1 input source (DVI MOSAIC). – Max. width: 2048. Max. height: 2048. • In dual-link mode. <ul style="list-style-type: none"> – DVI 1 and DVI 3 are dual-link DVI connectors while DVI 2 and DVI 4 are unavailable. – DVI 1/DVI 3: Input resolution up to 3840×1080@60Hz, downward compatible. – Max. width: 3840. Max. height: 3840. • For supported standard resolutions. • Supports HDCP 1.4. • DOES NOT support interlaced signal inputs.
12G-SDI	2	<ul style="list-style-type: none"> • Supports ST-2082-1 (12G), ST-2081-1 (6G), ST-424 (3G) and ST-292 (HD) standard video inputs. • Input resolution up to 4096×2160@60Hz, downward compatible. • Supports interlaced signal inputs. • Standard resolutions unsupported. • Maximum resolution supported: <ul style="list-style-type: none"> Max. width: 8192. Max. height: 8192.

DP 1.2	1	<ul style="list-style-type: none"> • Input resolution up to 3840x2160 @60Hz, downward compatible. • HDCP 1.3 compliant. • Standard resolutions supported. • Maximum resolution supported: Max. width: 8192. Max. height: 8192. • DOES NOT support interlaced signal inputs.
HDMI 2.0	1	<ul style="list-style-type: none"> • Input resolution up to 3840x2160 @60Hz, downward compatible. • Supports HDCP 2.2. • EDID management. • Standard resolutions supported. • Maximum resolution supported: Max. width: 8192. Max. height: 8192 • DOES NOT support interlaced signal inputs.
Output		
Connector	Quantity	Description
Ethernet port	16	<ul style="list-style-type: none"> • 16 x Neutrik Gigabit Ethernet output connectors, allowing for a loading capacity of up to 10,400,000 pixels. • Maximum loading capacity: Max. width: 16384, max. height: 8192. • Maximum loading capacity of a single Ethernet port: <ul style="list-style-type: none"> – 8-bit input source: 650,000 pixels. – 10-bit/12-bit input source: 320,000 pixels.
OPT 1–4	4	<p>10G optical connectors</p> <ul style="list-style-type: none"> • OPT 1 transmits data of Ethernet ports 1–8. • OPT 2 transmits data of Ethernet ports 9–16. • OPT 3 serves as the copy/hot backup for OPT 1. • OPT 4 serves as the copy/hot backup for OPT 2.
HDMI 2.0 LOOP	1	<ul style="list-style-type: none"> • HDMI loop output connector. Only 1 level of device cascading supported. • HDCP 2.2. • EDID management.
12G-SDI LOOP	2	SDI loop output connectors.
MONITOR	1	<ul style="list-style-type: none"> • HDMI connector for output monitoring. • Resolution up to 1920x1080@60Hz.
Control		
Connector	Quantity	Description
ETHERNET	1	Connect to the PC for communication, or connect to the Web for device control.
USB (Type-B)	1	<ul style="list-style-type: none"> • Connect to the PC for device control. • Used as the input connector to connect a NovaPro UHD Jr unit for image mosaic.

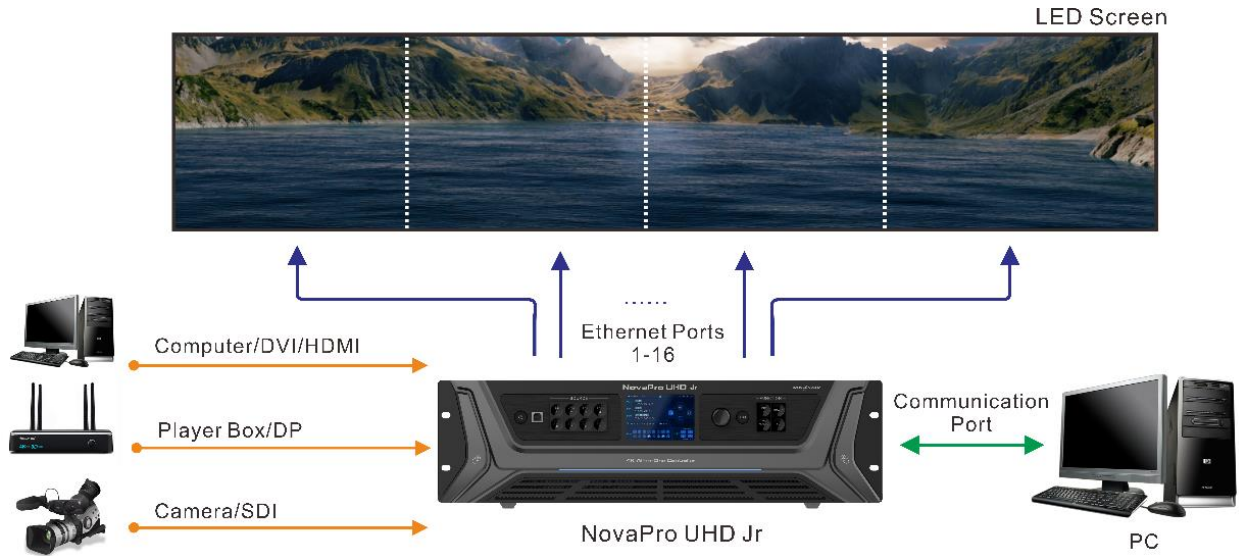
USB (Type-A)	1	Used as the output connector to connect a NovaPro UHD Jr unit for image mosaic.
GENLOCK LOOP	IN- 1	Connect to a synchronization signal to synchronize all the connected NovaPro UHD Jr units.
RS232	1	Connect to the control device.

Dimensions



Unit: mm

Applications



Specifications

Electrical Specifications	Power connector	AC100–240V~, 50/60Hz
	Power consumption	70 W
Working Environment	Temperature	0°C–45°C
	Humidity	0% RH–80% RH, non-condensing
Storage Environment	Temperature	-10°C–60°C
	Humidity	0% RH–95% RH, non-condensing
Physical Specifications	Dimensions	482.6mm×396.5mm×139.0mm
	Net weight	6.3 kg
	Total weight	13 kg
Packing Information	Packing box	590.0 mm × 270.0 mm × 510.0 mm
	Carrying case	585.0 mm × 265.0 mm × 490.0 mm
	Accessory Box	402.0 mm × 347.0 mm × 65.0 mm
	Accessories	1 × Power cable (EU) 1 × Power cable (US) 1 × Power cable (UK) 1 × Cat5e cable 1 × USB cable 1 × DVI cable 1 × HDMI cable 1 × DP cable 1 × Quick Start Guide 1 × Packing List

		1 × Customer Letter 4 × Silicone dust plugs
Certifications		EMC, RoHS, LVD, FCC and CB
Noise Level (typical at 25°C/77°F)		46dB(A)

Video Source Features

Input Connector	Color Depth		Max. Input Resolution
HDMI 2.0 DP 1.2	8 bit	RGB4:4:4	3840x2160@60Hz
		YCbCr4:4:4	3840x2160@60Hz
		YCbCr4:2:2	3840x2160@60Hz
		YCbCr4:2:0	Unsupported
	10 bit	RGB4:4:4	3840x1080@60Hz
		YCbCr4:4:4	3840x1080@60Hz
		YCbCr4:2:2	3840x2160@60Hz
		YCbCr4:2:0	Unsupported
	12 bit	RGB4:4:4	3840x1080@60Hz
		YCbCr4:4:4	3840x1080@60Hz
		YCbCr4:2:2	3840x2160@60Hz
		YCbCr4:2:0	Unsupported
S-DVI	8 bit	RGB4:4:4	1920x1080@60Hz
D-DVI	8 bit	RGB4:4:4	3840x1080@60Hz
SDI	Max. input resolution: 4096x2160@60Hz Input resolution and bit depth settings unsupported Supports ST-2082-1 (12G), ST-2081-1 (6G), ST-424 (3G) and ST-292 (HD) video inputs		

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